

GENERAL INDEX TO VOLUME X

New scientific names of plants and the final members of new combinations are printed in **bold face** type; synonyms and page numbers having reference to figures and plates, in *italic*; and previously published scientific names and all other matter, in ordinary type.

A

Acidity, relation of, to growth of citrus-destroying fungi, 245; to *Diaporthe Sojae*, 157
Actinastrum Hantzschii, 416
Aetheolaena involucreta, 83
Agaricus, 181
 Alcoholic products, production of, by various fungi, 290
Aleurodiscus perideniae, 187
 Algae from lakes in the northeastern part of North Dakota, 393
Alternaria Citri, 242, 281
 Amino nitrogen, determination of, 330
 Amoeba or protozoan theory of mosaic disease, 196
Anabaena affinis, 403; *circinalis*, 404; *flos-aquae*, 404, var. *Treleasii*, 404; *Lemmermanni*, 404; *macrospora*, 404, 422; *spiroides*, 405, 422
Ankistrodesmus falcatus, 415; *spiralis*, 415
Aphanizomenon flos-aquae, 405
Aphanochaete repens, 419
 Apparatus and materials used in sugar determination, 72
applanatus (*Fomes*), 184
arachnoideum (*Corticium*), 187
arcularius (*Polyporus*), 182
 Armstrong, Joanne K., B. M. Duggar and. Indications respecting the nature of the infective particles in the mosaic disease of tobacco, 191
Arthrodesmus controversus, 410
Arthrospira Jenneri, 402
 Asci of soybean fungus, 124, containing ascospores, 122, germinating, 124
Aspergillus niger, 242; nitrogen metabolism in, 322
Asterocystis smaragdina, 406, 422
auricula-Judae (*Auricularia*), 188
Auricularia auricula-Judae, 188; *nigrescens*, 188; *tenuis*, 188
australis (*Fomes*), 184

B

Bacillus atrosepticus, 5, 17, 43; *caulivorus*, 3; *coli*, 46; *communis*, 46; *fluorescence liquefaciens*, 3; *melanogenes*, 19; *phytophthorus*, 5, 17; *solanisaprus*, 18; *vulgatus*, 46
 Bacterial theory of mosaic disease, 194
 Beals, Cora Mautz. An histological study of regenerative phenomena in plants, 369
 Blackleg, potato, 1; diagnosis of, 9; economic aspects of, 13
Botryococcus Braunii, 413
Bryophyllum, experiments in regeneration with, 373, 378, 384
Bulbochaete sp., 417
 Burt, E. A. Higher fungi of the Hawaiian Islands, 179

C

Cacalia arborea, 77; *dichroa*, 87; *glabrata*, 97; *involucreta*, 83; *patens*, 87; *pulchella*, 90; *teretifolia*, 96; *vaccinioides*, 97
Callonema smaragdina, 406
Calothrix fusca, 405; *scytonemicola*, 405
 Camp, A. F. Citric acid as a source of carbon for certain citrus fruit-destroying fungi, 213
Campanella cucullata, 186
 Carbohydrate utilization by strains of the blackleg bacillus and other micro-organisms, 45
 Carbon: analysis apparatus, 237, 238, 238; citric acid as a source of, for certain fruit-destroying fungi, 213; total, determination of, 236
 Carter, Nellie, George T. Moore and. Algae from lakes in the northeastern part of North Dakota, 393
cepaeforme (*Lycoperdon*), 189
Chaetophora elegans, 418

Chara elegans, 420
chioneus (Polyporus), 182
Chondrocystis Schauinslandii, 398
Chroococcus dispersus, 397, var. *minor*, 397; *limneticus*, 397; *turgidus*, 397
cinnamomea (Hymenochaete), 186
Citrate, growth of fungi on varying percentages of, 255
Citric acid, 213; apparatus, 222; as a source of carbon for certain citrus fruit-destroying fungi, 213; discussion of, 214; occurrence of, 226; physiological role of, 229; qualitative detection of, 215; quantitative determination of, 216
Cladophora Kuetsingiana, 419
Clathrocystis aeruginosa, 399, var. *major*, 399; *holistica*, 399
Closterium Dianae, 407, var. *arcuatum*, 408; *eborence*, 408, 422; *lanceolatum*, 408
Coelastrum cambricum, 415; *microporum*, 415
Coelosphaerium Kuetsingianum, 400; *Naegelianum*, 400
coliforme (Myriostoma), 189
coliformis (Geaster), 189
commune (Schisophyllum), 181
Conferva bombycina f. tenuis, 407
Corium (Mycenastrum), 189
corrugata (Trametes), 185
Corticium arachnoideum, 187; **granulare**, 187
Cosmarium calcareum, 409; *formosulum*, 409, var. *Nathorstii*, 409; *granatum*, 409; *hians*, 409; *impressulum*, 409; *Meneghinii*, 409; *pygmaeum*, 409; *Regnellii*, 409; *scopulorum*, 409; *subcostatum f. minor*, 409; *tenuis*, 409; *Turpinii* var. *podolicum*, 409
Crepidotus fulvotomentosus, 181; **rhizomorphus**, 181
Crucigenia quadrata, 414; *tetrapedia*, 414
cucullata (Campanella), 186
cucullata (Laschia), 186
cucullatus (Merulius), 186
Cylindrocapsa geminella, 417
Cyphella villosa, 186

D

Daedalea sanguinea, 185
Dextrose solution, 236, 323
Diaporthe Sojae, 128, 170-178
Dictyosphaerium Ehrenbergianum, 415; *pulchellum*, 415
Diplodia natalensis, 242; nitrogen metabolism in, 322
dryophilus (Polyporus), 182

Duggar, B. M., and Joanne Karrer Armstrong. Indications respecting the nature of the infective particles in the mosaic disease of tobacco, 191
 Duggar's solution, 323

E

elegans (Stereum), 187
Enteromorpha intestinalis, 417; *prolifera*, 417
Enzyme theory of mosaic disease, 194
Epithele hydnoides, 188
Eudorina elegans, 412
Ezidia polytricha, 188

F

fasciatus (Fomes), 184
fasciculata (Poria), 184
fasciculatus (Fomes), 183
fibula (Polystictus), 184
fiabellaris (Polyporus), 182
fiabellatus (Pleurotus), 180
Flagellata, 397
Flax, experiments on regeneration with, 374, 378, 380
floccosus (Polystictus), 184
Fomes applanatus, 184; *australis*, 184; *fasciatus*, 184; **fasciculatus**, 183; *Fulageri*, 184; *hawaiensis*, 183; *Korthalsii*, 182; *rimosus*, 184; *robustus*, 184; *senez*, 182
Fulageri (Fomes), 184
fulvotomentosus (Crepidotus), 181
Fungi: certain citrus fruit-destroying, citric acid as a source of carbon for, 213; growth of, on varying percentages of citrate, 255; some aspects of nitrogen metabolism in, 299; studies in the physiology of the, XVI, 299

G

Ganoderma, 184
Geaster coliformis, 189
gemmatum (Lycoperdon), 189
gilvus (Polyporus), 182
glareosa (Psathyra), 181
Gloeocapsa fenestralis, 397
Gloeotrichia echinulata, 406
Glucose solution, 323
Gomphosphaeria aponina, 400, var. *cordiformis*, 400
granulare (Corticium), 187
 Greenman, J. M. Studies of South American *Senecios*—I, 73
 Griading, effect of, on the infectivity of tobacco virus, 204

Gynozis alternifolia, 76

H

- hawaiiensis* (Fomes), 183
 Hawaiian Islands, higher fungi of the, 179
Herpoteiron confervicola, 419
 Higher fungi of the Hawaiian Islands, 179
Hirneola nigra, 188
hirsutus (Polystictus), 184
 Histological study of regenerative phenomena in plants, 369
Holopodia irregularis, 400
 Horseradish, experiments on regeneration of roots of, 371, 378, 382
hydroides (Epithele), 180
Hydnum, 186
 Hydrogen-ion concentration of culture solutions, 325; change of media, 335; effect of, on germination of pycnospores of *Diaporthe Sojae*, 153; of culture solutions after growth of fungous mats, 258; of citric acid solution after fermentation by various fungi, 260; of dextrose solution after fermentation by various fungi, 259; reaction of, to growth of citrus fruit-destroying fungi, 245
Hymenochaete cinnamomea, 186; *spreti*, 186; *tenuissima*, 186

I

- Indications respecting the nature of the infective particles in the mosaic disease of tobacco, 191

J

- Jennison, H. M. Potato blackleg, with special reference to the etiological agent, 1

K

- Kirchneriella lunaris* var. *irregularis*, 415; *obesa*, 415, var. *aperta*, 415
 Klotz, L. J. Studies in the physiology of the fungi, XVI, Some aspects of nitrogen metabolism in fungi, 299
Korthalsii (Fomes), 182

L

- lactinea* (Trametes), 185
Laschia cucullata, 186
latum (Stereum), 187

- Lehman, S. G. Pod and stem blight of soybean, 111
 Lemons, acid and sugar content of, 227
Lepiota xylophila, 180
 Light, effect of, on production of pycnidia of various fungi, 147
lignosus (Polyporus), 182
Lycoperdon cepaeforme, 189; *gemmatum*, 189; *Wrightii*, 189
Lyngbya birgei, 402; *contorta*, 403; *Martensiana*, 403

M

- marginata* (Pholiota), 181
 Media: employed in study of blackleg organism, 26; used in culture of soybean fungus, 153; used in nitrogen experiments, 323
Melilotus alba, 120
Merismopodia glauca, 400; *irregularis*, 400; *punctata*, 400; *tenuissima*, 400
Merulius cucullatus, 186
Microchaete corymbosa, 86; *glabrata*, 97; *pulchella*, 90; *trichopus*, 90; *vaccinioides*, 97
Micrococcus phytophthorus, 2
Microcystis incerta, 399; *pulvera*, 399; *stagnalis*, 399
microloma (Polystictus), 184
 Moisture, effect of, on pycnidia formation, 152
 Moore, George T., and Nellie Carter. Algae from lakes in the northeastern part of North Dakota, 393
 Mosaic disease of tobacco, indications respecting the nature of the infective particles in the, 191
Mougiotia calcarea, 412
Mycenastrum Corium, 189
Myriostoma coliforme, 189

N

- Naucoria triscopoda*, 181
Nectria Ipomoeae, nitrogen fixation of, 334
nigra (*Hirneola*), 188
nigrescens (*Auricularia*), 188
 Nitrites, determination of, 329
 Nitrogen metabolism in fungi, some aspects of, 299
 Nitrogen, total, determination of, 327
Nodularia spumigena, 403, var. *genuina*, 403, var. *major*, 403
 North Dakota: algae from lakes in the northeastern part of, 393; map of the physiographic regions of, 390; map of northeastern part of, 392; notes on

the physiography of, and the conditions in certain of its waters, 383

O

- Odontia Wrightii*, 186
Oedogonium sp., 417
Oocystis crassa, 413; *lacustris*, 413; *pusilla*, 413
Oospora Citri-auranti, 244
 Oranges, acid and sugar content of, 227
Oscillatoria amphibia, 401; *brevis*, 401; *chalybea*, 401; *janthiphora*, 401, 422
ostreatus (*Pleurotus*), 180
 Oxalic acid, determination of, 236

P

- Pandorina morum*, 412
Pediastrum boryanum, 416, var. *longicorne*, 416; duplex var. *clathratum*, 416, var. *gracillimum*, 416; simplex, 417, var. *duodenarium*, 417; *tetras*, 417
Penicillium digitatum, 241; *italicum*, 240; *stoloniferum*, 241
 Peptone solutions, 323
perideniae (*Aleurodiscus*), 187
Peronospora infestans, 2
Pereoonii (*Polystictus*), 185
Pholiota marginata, 181
Phoma Betae, 322; nitrogen metabolism in, 334
Phoma blight of soybean, 111
Phomopsis Citri, 244, 289
 Physiography of North Dakota, notes on, and the conditions in certain of its waters, 385
pinsitus (*Polystictus*), 184
Pleurotus flabellatus, 180; *ostreatus*, 180
 Pod and stem blight of soybean, 111, 170-178; description of, 112; morphology of, 115
Polycyatis pallida, 399; *stagnalis*, 399
Polyporus arcularius, 182; *chioneus*, 182; *dryophilus*, 182; *flabellaris*, 182; *gilvus*, 182; *lignosus*, 182; *sulphureus*, 182
Polystictus fibula, 184; *floccosus*, 184; *hirsutus*, 184; *microloma*, 184; *Persoonii*, 185; *pinsitus*, 184
polytricha (*Exidia*), 188
Poria fasciculata, 184; sp., 185
 Potato blackleg, with special reference to the etiological agent, 1
 Potato plants, affected with blackleg, showing characteristic symptoms, 70, 72
 Protozoan theory of mosaic disease, 197
Psacalum vaccinioides, 97; *glabratum*, 97

- Psathyra*, 181; *glareosa*, 181
 Pycnospores of soybean fungus, 119; germinating, 120
 Pycnosporophores of soybean fungus, 119

R

- Rainfall, relation of amount of, to prevalence of pod and stem blight of soybean, 145
 Regenerative phenomena in plants, an histological study of, 369
Rhabdoderma sigmoidea, 398, 422, f. *minor*, 398, 422
Rhizoclonium crispum, 419; hieroglyphicum, 419
rhizomorphus (*Crepidotus*), 181
rimosus (*Fomes*), 184
Rivularia coadunata, 406
robustus (*Fomes*), 184

S

- sanguinea* (*Daedalea*), 185
Scenedesmus bijugatus, 413, var. *alternans*, 413, var. *flexuosus*, 413; *dimorphus*, 414; *obliquus*, 414; *quadricauda*, 414, var. *bicaudatus*, 414, 422, var. *quadrispina*, 414, var. *Westii*, 414
Schizophyllum commune, 181
Sclerotinia Libertiana, 244, 287
Selenastrum gracile, 415; *Westii*, 415
Senecio aberrans, 73, 100; *abietinus*, 75; *adenophyllus*, 75; *adenotrichus*, 75; *alternifolius*, 76; *andicola*, 76; *apiculatus*, 76; *arboreus*, 77; *aridus*, 77, 102; *attenuatus* var. *microphyllus*, 80; *auritus*, 78; *brachycodon*, 78; *Buchtienii*, 78; *Chinogeton* f. *macrocephalus*, 80; *chaquiroensis*, 79; *clavifolius*, 80; *comosus*, 80; *culticioides*, 81; *decompositus*, 81; *ericaeifolius*, 81; *formosus*, 82; *formosus*, 93, var. *subruncinatus*, 94; *genuflexus*, 82; *involucratum*, 83; *iodopappus*, 83; *laciniatus*, 84; *latiflorus*, 84; *ledifolius*, 76; *lophophyllus*, 84, 104; *Magnusii*, 85; *medullosus*, 85; *Microchaete*, 86; *modestus*, 86; *nubigenus*, 87; *organensis*, 87; *otophorus*, 87; *patens*, 87; *pellucidinervis*, 88; *Pennellii*, 88, 106, var. *gachetensis*, 89; *pericaulis*, 89; *pimpinellifolius* var. *laciniata*, 84, var. *nubigena*, 87; *pindilicensis*, 90; *pulchellus*, 90; *rudbeckiaefolius*, 90; *sanctae-martae*, 91; *scortifolius*, 91; *sinapoides*, 92; *Sprucei*, 93; *stigophlebius*, 93; *Stuebelii*, 93; *subdecurrens*, 93; *subglomerosus*, 93, 108;

subbruncinatus, 94; *sylvicolus*, 95, 110; *Tabacon*, 82; *teretifolius*, 96; *theaeifolius*, 97; *tolimensis*, 97; *vaccinioides*, 97, var. *pruinosis*, 97; *vernicosus* var. *major*, 76, var. *microphyllus*, 97; *Weddellianus*, 97; *Xanthopappus*, 98
Senecios, studies of South American—I, 73

senex (*Fomes*), 182

Soja max, 129

Solanum tuberosum, 1

Sorastrum spinulosum, 415

Soybean fungus, 170-178

Soybean, pod and stem blight of, 111; cultural characters, 142; manner of infection, 139; overwintering and dissemination, 140; varietal susceptibility, 141

Sphaeropsis malorum, change in fungous mat, 340; nitrogen metabolism in fungi, 322

Spirogyra lutetiana, 412

Spirulina major, 402; *subtillissima*, 402; *tenerrima*, 402

spreta (*Hymenochaete*), 186

Stauroastrum gracile, 410, forma, 410, 422; *paradoxum* var. *evolutum*, 411, 422; f. *biradiata*, 411, 422; *tetracerum* f. *evolutum*, 411

Stereum elegans, 187; *latum*, 187

Stigeoclonium sp., 418, 422

Stylospores of soybean fungus, 121

Sugars, reducing, determination of, 48, 236, 325

sulphureus (*Polyporus*), 182

Sweet-potato, experiments on regeneration with, 371, 373, 382

T

tenuis (*Auricularia*), 189

tenuissima (*Hymenochaete*), 186

Tetraedron limneticum, 413; *quadricuspidatum*, 413, 422; *trigonum* var. *gracile*, 413

Tetrapedia Reinschiana, 401

Tobacco, mosaic disease of, 191

Trametes corrugata, 185; *lactinea*, 185;

sp., 185

triscopoda (*Naucoria*), 181

U

Ultrafiltration experiments in mosaic disease, 199

Ustulina vulgaris, 189

V

villosa (*Cyphella*), 186

Virus theory of mosaic disease, 195

Volvox globator, 412; *mononae*, 412

vulgaris (*Ustulina*), 189

W

Wollea saccata, 403

Wrightii (*Lycoperdon*), 189

Wrightii (*Odontia*), 186

X

xylophila (*Lepiota*), 180

Y

Young, R. T. Notes on the physiography of North Dakota and the conditions in certain of its waters, 385

Z

Zygnema, 411